

MOBILE RACKS





SMART REVOLUTION
**COMPACTABLE
WAREHOUSE**
TURNKEY

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FERALL GROUP

FERALL – a pioneering group that has been in the industry for more than 35 years.

Always a point of reference as a generic manufacturer, Ferall has grown over the years, diversifying services and products that allow the birth of the group.

The diversification that as a whole turns into a complete service to the customer becomes the reference strategy that allows Ferall to stand out for quality and specialization.

Each division is specialized in a specific reference product/service.

Today the group proposes itself with its own divisions specialized in unique products and services:

- Production division
(Ferall)
- Automatic warehouse division
(Ferall Warehouse logistics)
- Racks division
(Ferall Racks)
- Engineering division
(Engineering Department)





MADE IN ITALY PRODUCTION

The **FERALL GROUP** produces all products within its Italian offices, which has always been a spokesman for MADE IN ITALY and aims to set quality and Italian standards in every process.

Ferall's production capacity is dictated by a complete fleet of machines that allows the production process to be elastic for particular processes and/or by-products and equally serial for standard repetitive elements. The production layout therefore allows to carry out the entire development of one of the many products in the catalog or based on special requests, starting from the raw material to the finishing such as painting.

Production sites:

Via Montegrappa 103, 20060
Pessano con Bornago (MI)
Total production area **6000 Mq.**

Via per Cascina Rafredo 5, 20064
Gorgonzola (MI)
Total production area **4000 Mq.**

Ferall warehouse logistics is specialized in the design and production of compactable warehouses.

Compactable warehouse: the ideal solution for the storage of heavy and bulky goods.

Compactable warehouse is an ideal storage system for companies handling heavy and bulky goods, such as building materials, industrial equipment, vehicles, tires, etc. These racks systems are designed to optimize warehouse space and increase the efficiency of goods handling operations.

How do compactable warehouse work?

Compactable warehouse consists of one or more mobile trolleys on which shelves for the position of goods are installed. The trolleys are able to slide on fixed guides, placed on the floor, allowing the creation of loading lanes. In this way, operators



can only access the loading lane that is used for picking or storing goods, without having to move all the shelf load, as happens in traditional racks systems. In questo modo, gli operatori possono accedere solo alla corsia di carico che serve per il prelievo o la messa in magazzino delle merci, senza dover spostare tutto il carico di scaffali, come accade nei tradizionali sistemi di scaffalatura.

What are the advantages of compactable warehouse?

Compactable warehouse offers numerous advantages for companies that use them:

Increased storage capacity:

grazie alla riduzione dello spazio necessario per i passaggi di accesso alle merci, le scaffalature compattabili consentono di aumentare la capacità di stoccaggio fino al 80% rispetto ai sistemi di scaffalatura tradizionali.

Increased operational efficiency:

with compactable warehouse, operators can access goods faster and more efficiently, reducing waiting times and

increasing productivity.

Safety of goods:

the compactable warehouse is designed to ensure maximum safety of the goods stored, avoiding possible damage during handling.

Adaptability to the needs of the company:

the compactable warehouse can be customized according to the specific needs of the company, with different configuration options and materials, to ensure maximum performance of warehouse space.

Why choose compactable racks?

Compactable warehouse is the ideal solution for companies looking to optimize warehouse space and increase the efficiency of goods handling operations. Thanks to their flexibility, these racks systems can be customized according to the specific needs of the company, ensuring maximum efficiency and productivity. In addition, compactable warehouse represents a long-lasting investment, thanks to their robustness and resistance to the daily stresses of the warehouse.





SPACEALL™ MOBIL BASES

The design of SPACEALL™ mobile bases is the first step for the construction of compactable warehouses.

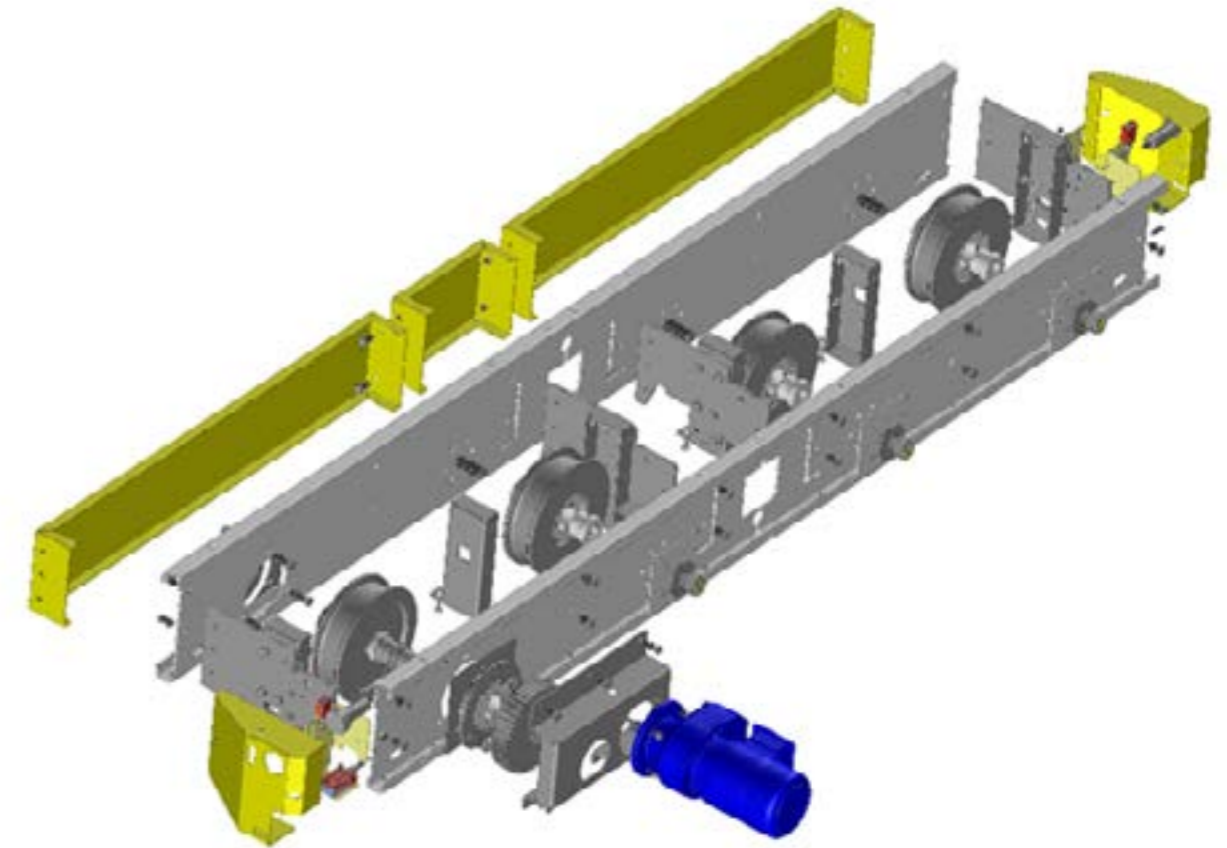
SPACEALL™ IS BASED ON 4.0 TECHNOLOGY WITH INTEGRATED MANAGEMENT SOFTWARE.

SPACEALL™ is constantly evolving thanks to research and development, which allows it to be classified as the mobile base of reference at international level.

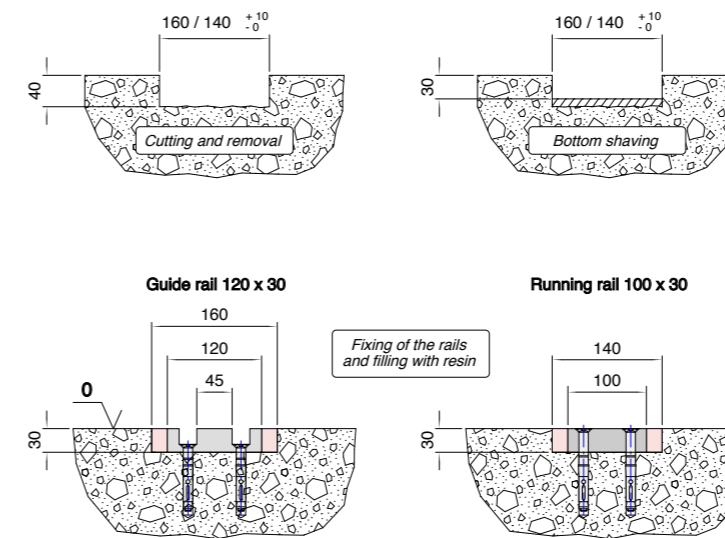
The production is totally developed within the production sites of the FERALL GROUP, thus allowing to shorten the entire

This phase is fundamental for two aspects: the first is to make real the possibility of creating a 100% ad hoc product based on the needs of the end user; second but not least is the qualitative aspect in the smallest details of the final product.

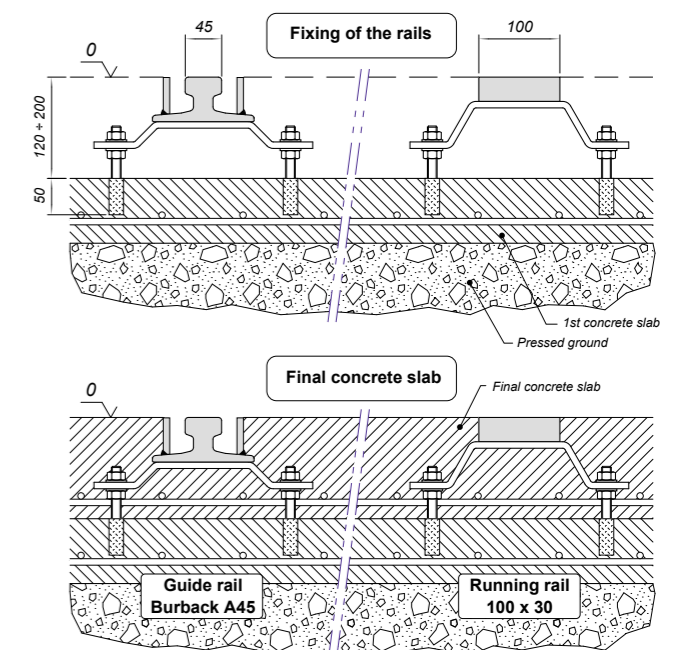
supply chain and obtain maximum malleability in terms of ad hoc solutions. FERALL warehouse logistics completes its service by offering assembly through the supervision of specialized project managers and finally the on-site and remote assistance service thanks to 4.0 technology implemented in SPACEALL™.



LAYING SPACEALL™ RAILS ON EXISTING FLOOR



LAYING SPACEALL™ RAILS ON NEW FLOOR



SPACEALL™ MOBILE BASES FOR RACKS

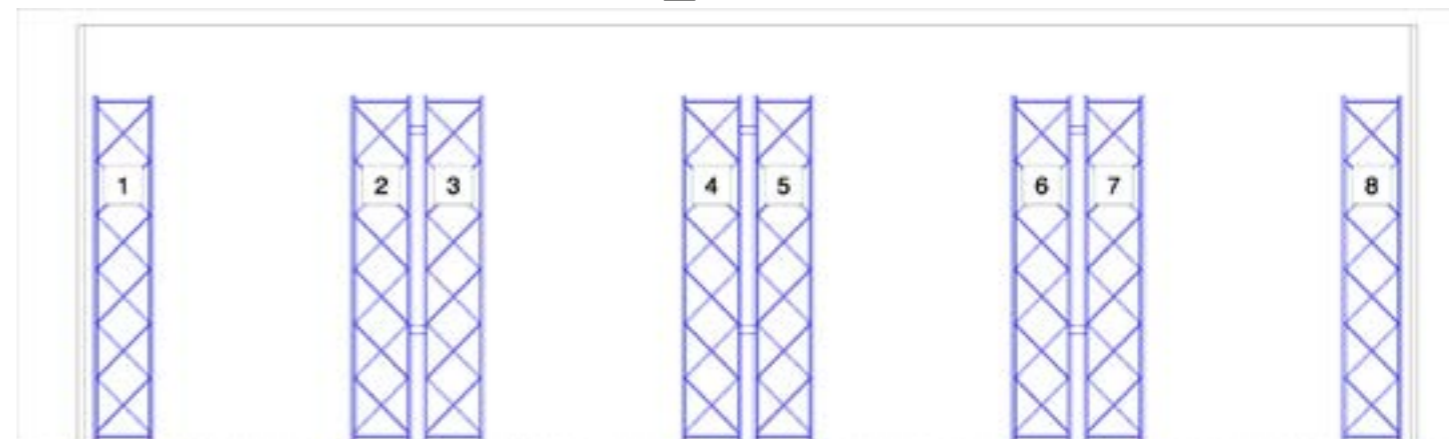
The most general application of SPACEALL™ mobile bases is in warehouses at room temperature.

SPACEALL™ is designed according to the racks model chosen by the customer.

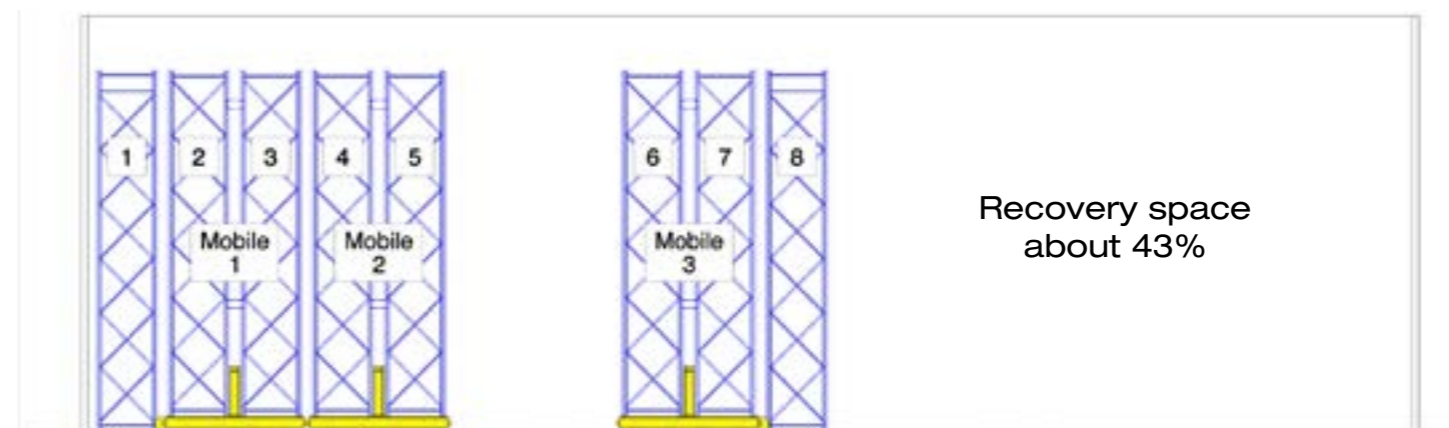
FERALL warehouse logistics therefore offers the possibility to purchase FERALL Racks, buy racks from other companies or reuse the racks already in

your own static warehouse.

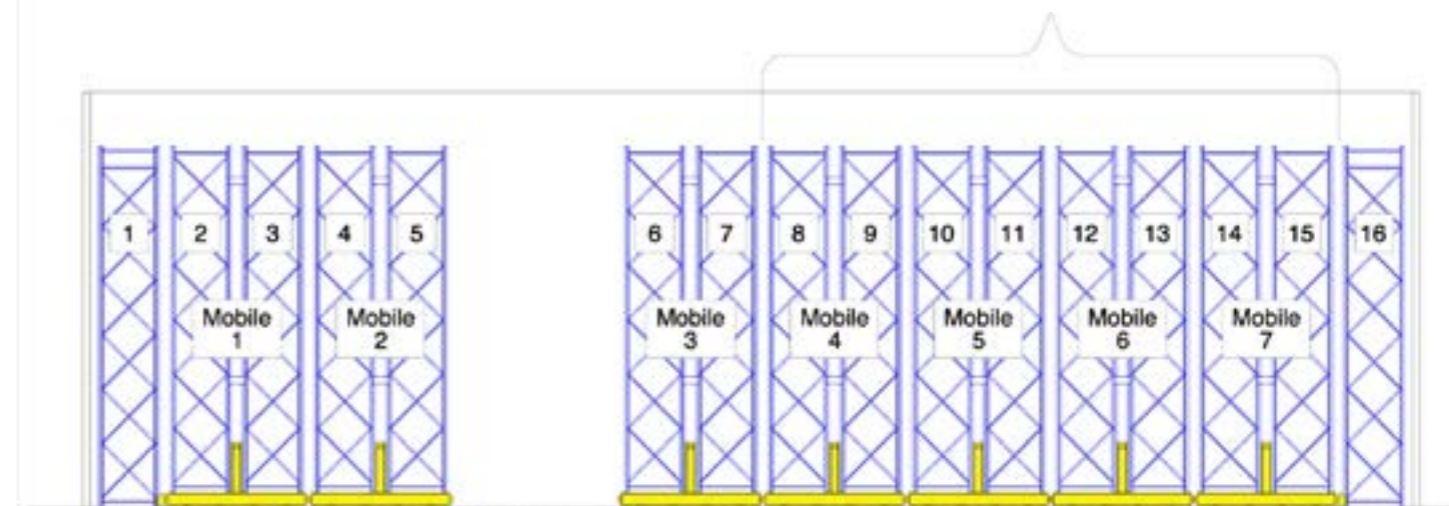
It is therefore possible to create a new warehouse from scratch or even to update your static warehouse by opting for the insertion of the SPACEALL™ sliding rails in the existing floor in the shed, or insert the sliding rails before the concrete pouring of the new floor.



With the SPACEALL™ compactable warehouse you can save about 43% of the space, with the same number of racks, or you can get an almost DOUBLE capacity of the warehouse, as shown below.



Increase about 100%





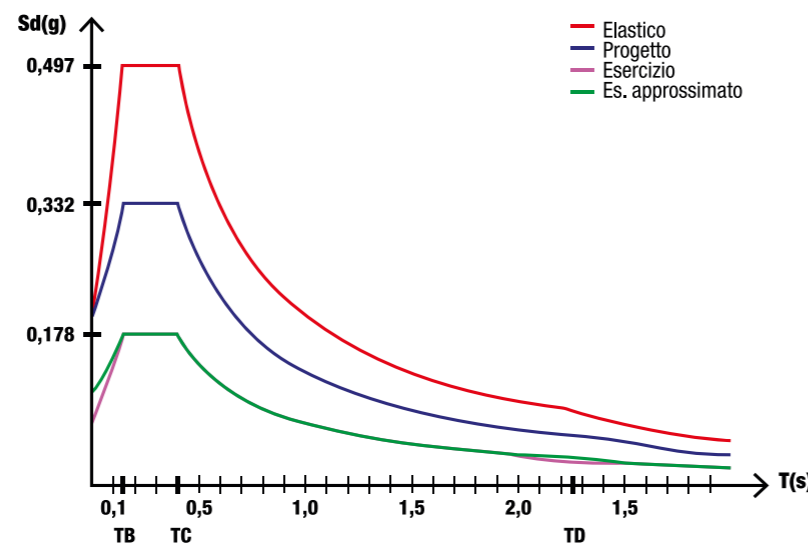
H MAX
12-15
meters

60 tons
MAX

you can
choose
YOUR racks

ANTISEISMIC TECHNOLOGY

SPACEALL™ is based on a PATENTED anti-seismic technology - **SISMOBLOCK™** - a modular component adaptable to any type of structure, guaranteeing anti-tipping according to the latest construction standards.



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SPACEALL™ MOBILE BASES FOR COLD ROOMS

One of the special applications of **SPACEALL™** mobile bases is in warehouses with sub-zero temperatures, such as cold rooms.

Also in this case **SPACEALL™** is designed according to the racks model chosen by the customer, or through **FERALL Racks**.

For these cases **SPACEALL™** is designed with special technologies and materials that offer mechanical performance as in normal situations at room temperature.

It is therefore possible to create a new warehouse from scratch or even to update your static warehouse by opting for the insertion of the **SPACEALL™** sliding rails in the existing floor, or insert the sliding rails before the concrete pouring of the new floor.

SPACEALL™ can reach temperatures down to **-35°C**.

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SPACEALL™ MOBILE BASES FOR CANTILEVER

When it is necessary to store bars, tubes, profiles, sheets and any other load unit developed in length, by mechanical means such as stacking cranes or forklifts, the absence of encumbrances on the storage floor allows greater versatility for any type of handling, here comes into play the

cantilever – **SPACEALL™** welcomes all types of cantilever in the catalog on the market and is perfectly suitable for the installation of the **FERALL Racks** cantilever.



SPACEALL™ MOBILE BASE FOR SPECIAL APPLICATIONS

With **SPACEALL™** it is possible to create a compactable warehouse that optimizes space and doubles storage capacity, even in challenging environments such as cold storage rooms, confined spaces, or irregularly shaped areas.

SPACEALL™ technology enables any type of internal movement, adapting to any kind of load unit-regardless of its shape, mass, or vertical and horizontal development- thanks to custom-designed mobile bases that support the upper load-bearing structure.

This solution is ideal for extreme conditions, including low-temperature or highly corrosive environments, ensuring optimized material access. It allows not only for the management of individual aisles but also for the control of access doors in perfect synergy with the compactable warehouse. Furthermore, installation can be carried out on both new and existing flooring, making **SPACEALL™** a flexible and tailor-made solution for any logistics requirement.



FERALL Racks S.R.L., a company founded in 2018, designs, manufactures and installs patented interlocking industrial racks, of any size, height and capacity, suitable for storing any type of goods both on pallets and in containers or in bulk.

Its modular structures always and in any case meet the most stringent load requirements, presenting at the same time the maximum practicality of assembly and an extraordinary functional usability.

FERALL Racks proposes itself as an ideal partner in the warehouse logistics sector, offering customized solutions suitable for any type of storage.

Palletracks, self-supporting, compactable warehouse (from **FERALL warehouse logistics**) and intensive warehouses are just some of the products that **FERALL Racks** manufactures, providing its customers with a real “integrated system for the creation of operating spaces”.

FERALL Racks also produces spare parts for **IMA**, **ITAL MOMET** e **STRONGBLOCK™** racks.

BRANDS POWERED BY
FERALL Racks:



STANDARD RACKS

Standard pallet racks are multi-level storage systems designed to accommodate and handle large, heavy-weight loads, usually contained in pallets. These systems consist of a series of vertical posts, connected by horizontal crossbars that form the levels on which the pallets are placed.

The pallet racks are available in different configurations, with different heights, widths and depths, according to the needs of the user. Can be equipped with

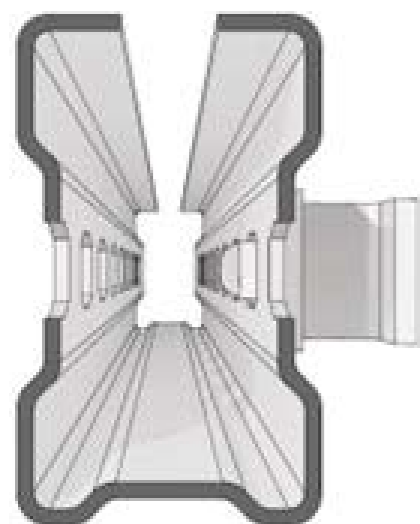
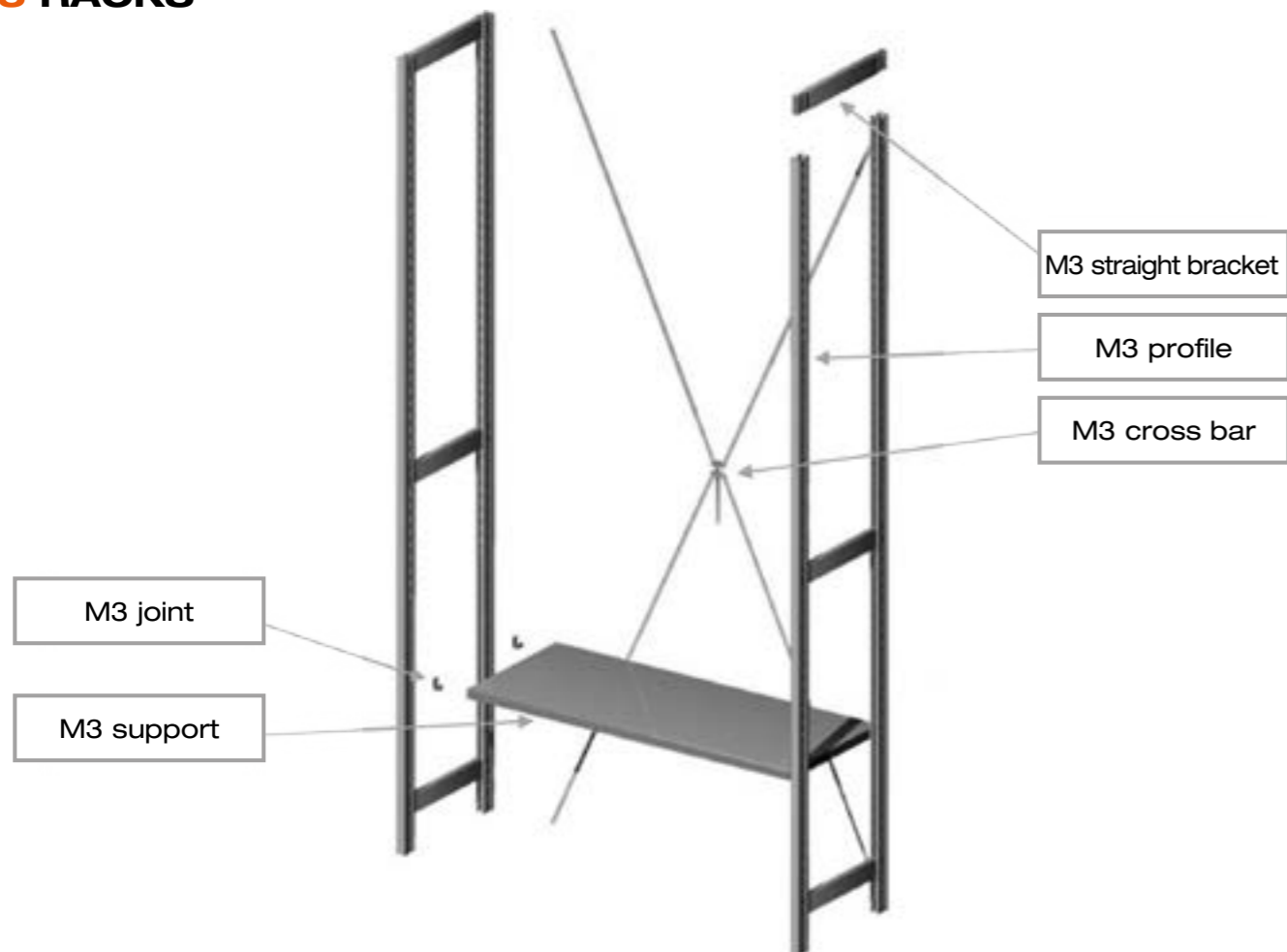
accessories such as pallet positioning guides, safety railings and support brackets.

Vertical profiles are generally made of steel or other durable materials and are anchored to the floor and/or walls to ensure adequate stability.

Horizontal crossbars, on the other hand, are typically made of steel and are fixed to the uprights to form the levels on which the pallets will be placed.

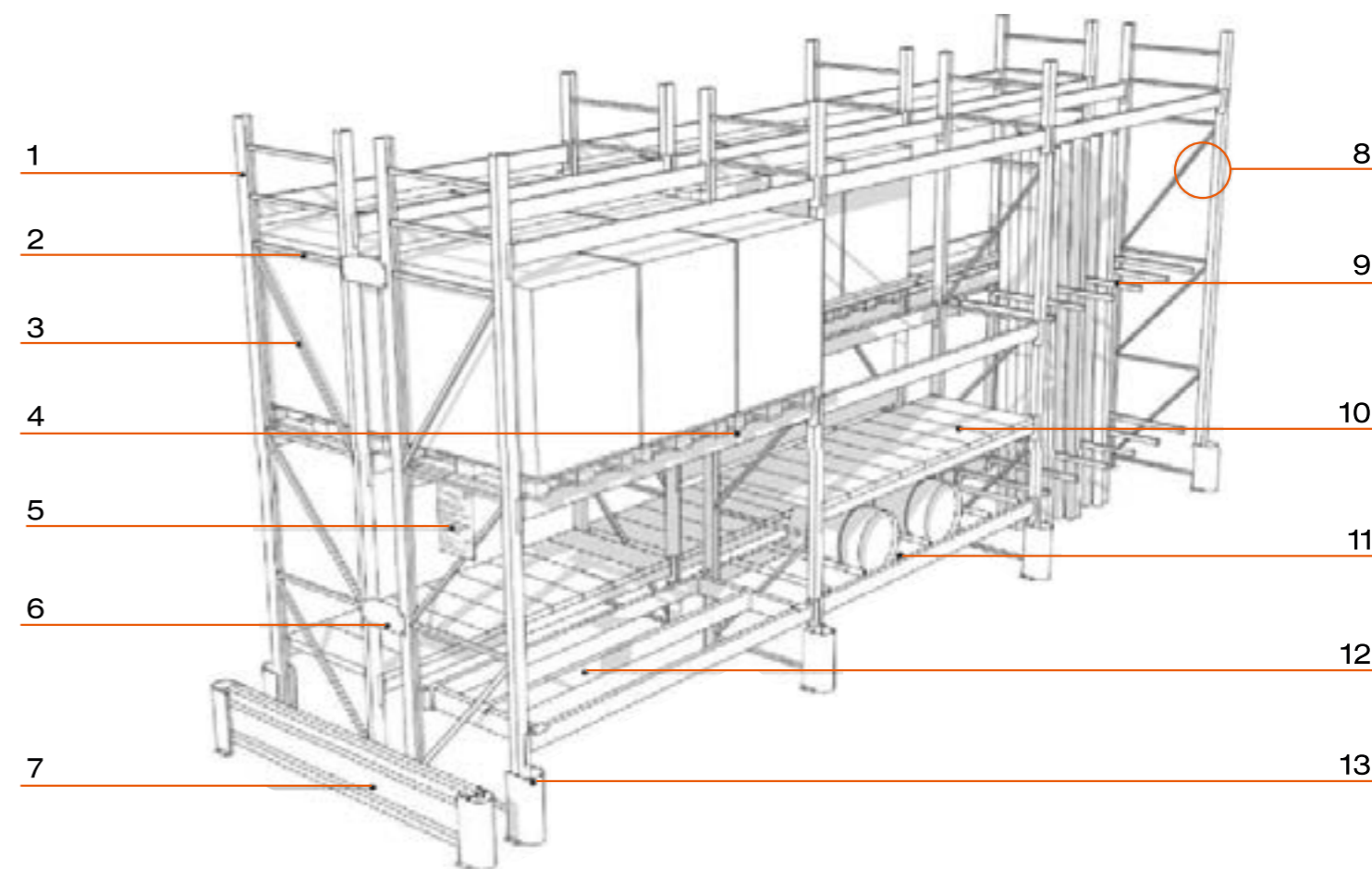


M3 RACKS



Profile dimension: 28x48
 Thickness: 15/10
 Slots space: 35 mm
 Surface: Galvanized/Painted

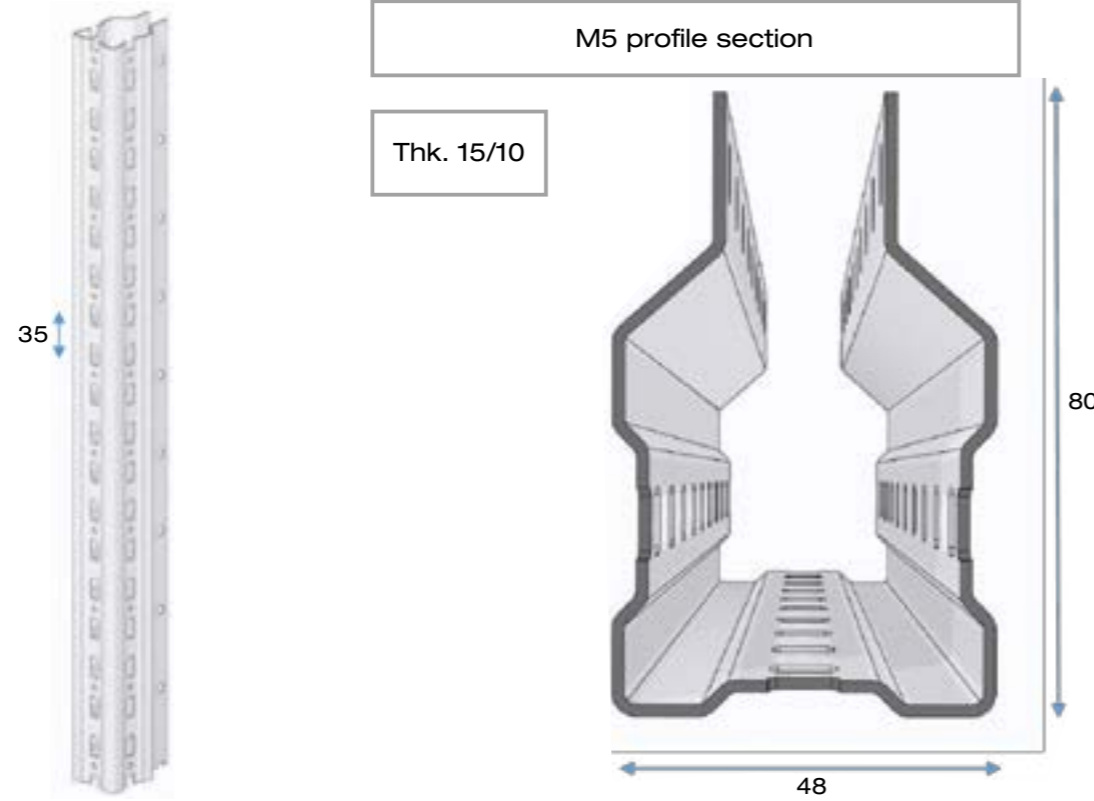
PALLET RACKS



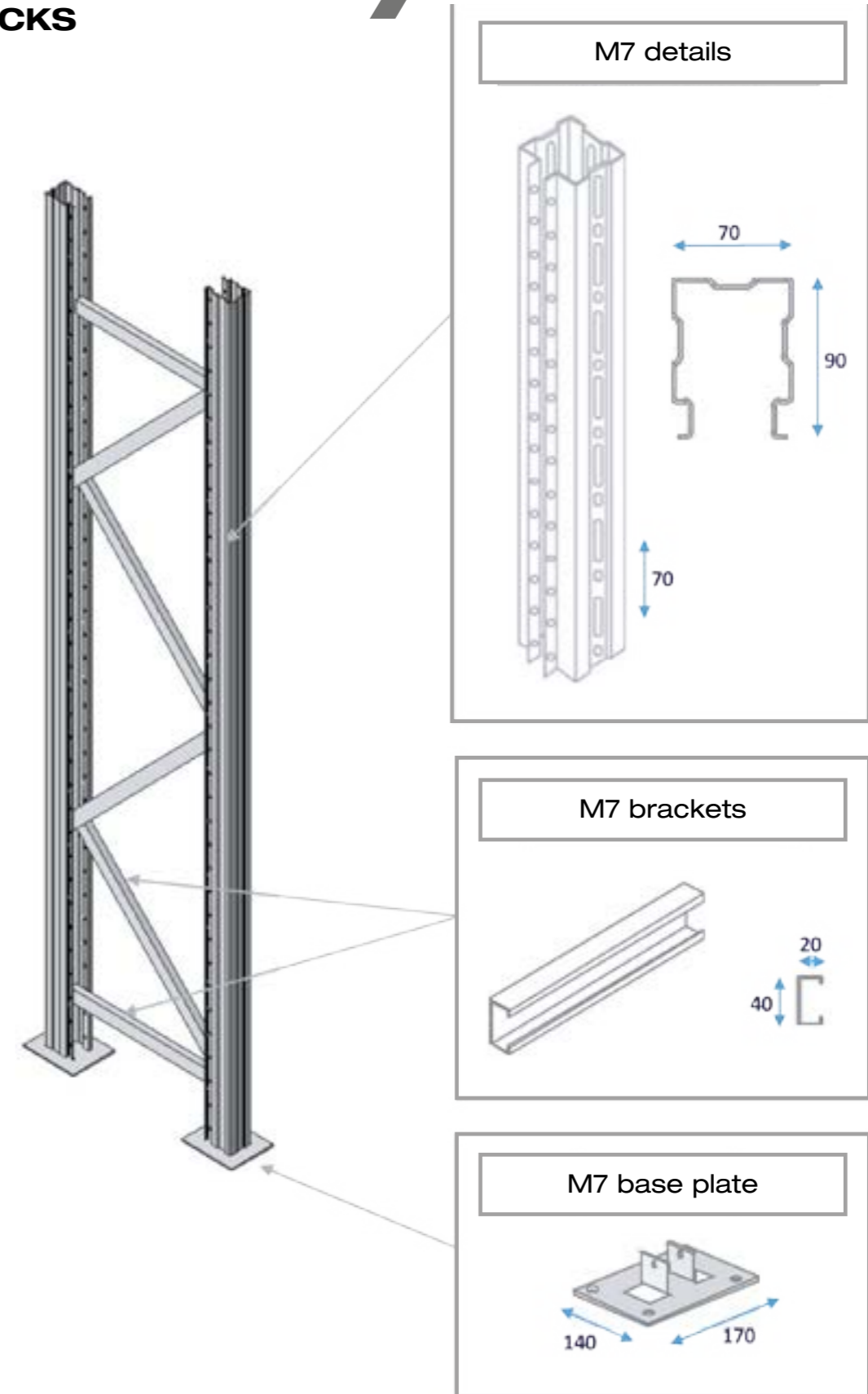
- 1 Profile
- 2 Straight bracket
- 3 Diagonal bracket
- 4 Beam pallet support
- 5 Capacity data plate
- 6 Joint bar
- 7 Guardrail

- 8 Frame
- 9 Beam separator
- 10 Self-supporting plate
- 11 Breaker beam for box
- 12 Breaker beam
- 13 Bumper

M5 RACKS

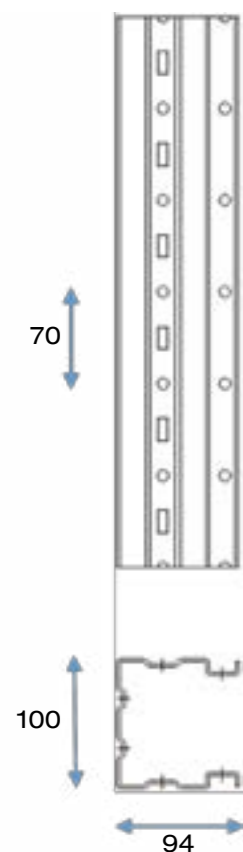


M7 RACKS

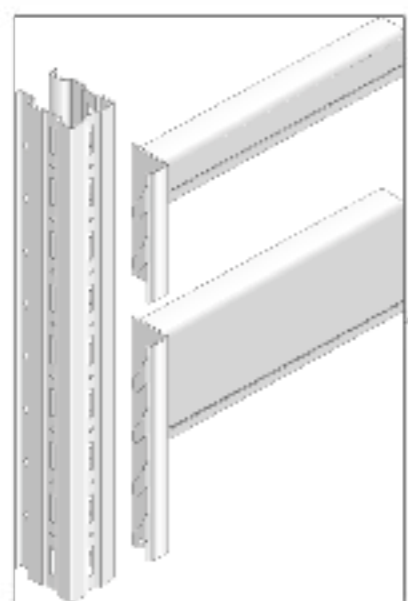




M10 RACKS



M10 profile-beam joint detail



2 joints beam

4 joints beam

STRONGBLOCK™ RACKS

The special joint between support beam and profile and the shoulder made with bolted profiles have been undisputed symbols of great strength and solidity for over 40 years.

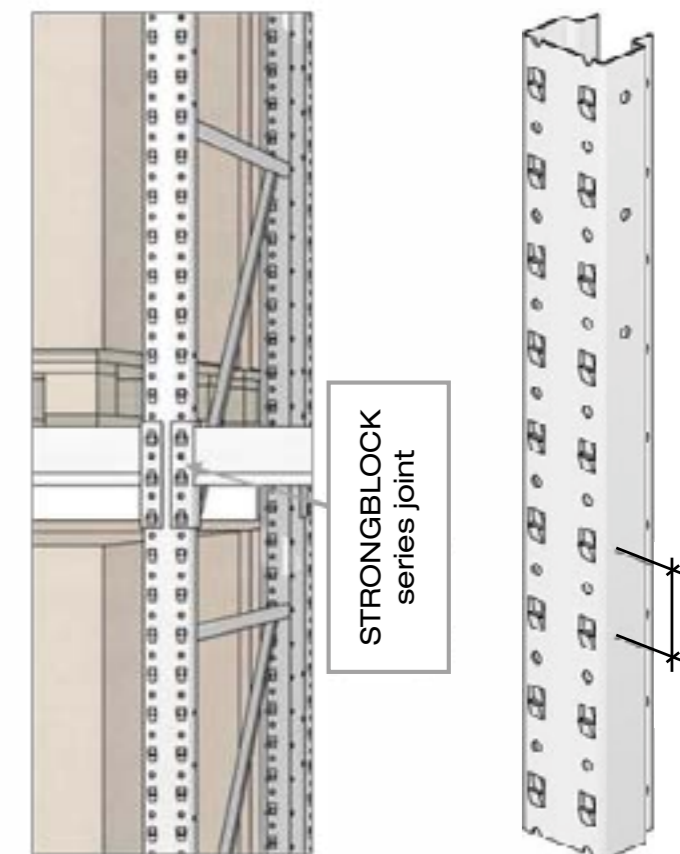
STRONGBLOCK™ interlocking pallet racks have a series of obvious functional and operational advantages:

- extremely simple and quick assembly;
- maximum flexibility of the system, with the possibility of expansion and modifications;
- optimal use of available space;
- ready mechanical or manual withdrawal of quantities, including unit quantities, to the extent and quantity required;
- absolute safety, thanks to the quality of the materials and compliance with the calculation requirements on flow rates according to current regulations.

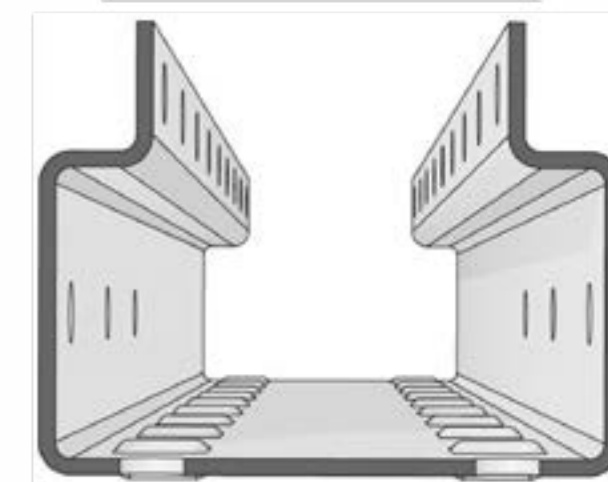
The **STRONGBLOCK™** pallet rack can be equipped with multiple accessories including:

- bumper protectors for uprights
- guard-rail protections;
- rear guards in mesh or sheet metal;
- rear stop beams;
- fall protection planse
- transverse and longitudinal breakers for beams;
- ground feedback guides for order picking or trilateral trolleys.

Profile-beam joint details



STRONG-BLOCK series profile section



DRIVE-IN RACKS

The **FERALL RACKS** drive-in is an intensive storage system with eliminated aisles particularly suitable for greater exploitation of the available surface and height.

It is considered the optimal solution when the need arises to store large quantities of homogeneous products.

This system has proved particularly useful in air-conditioned rooms and cold rooms.

The **FERALL RACKS** drive-in can be designed according to the two load managements:

- DRIVE-IN:

the handling of goods (loading-unloading) is carried out from a single side of the plant..

- DRIVE TROUGH:

handling of goods (loading-unloading) can be carried out from both sides of the plant.

CANTILEVER RACKS

The **FERALL RACKS** cantilever is particularly suitable for stowage and storage of bars, tubes, profiles, sheets and any other load unit developed in length, by mechanical means such as stacking cranes or forklifts.

The absence of encumbrances on the storage surface allows greater versatility for any type of handling.

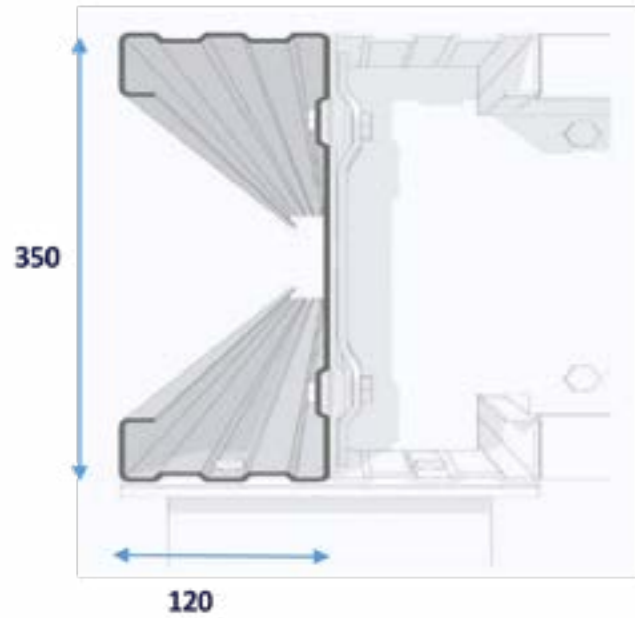
The system consists of columns, shelves, bases and bracing.

They can be produced in different sizes and capacities to meet all load requirements.

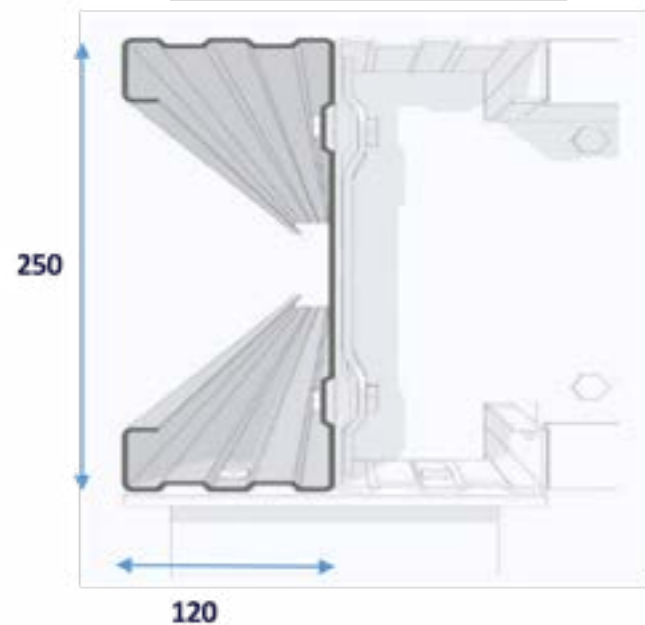
The **FERALL RACKS** cantilever can be made both single-sided and double-sided and is also applied in compactable solutions for the optimization of available space and for doubling the amount of storage.



Profile section



Profile section



MEZZANINE

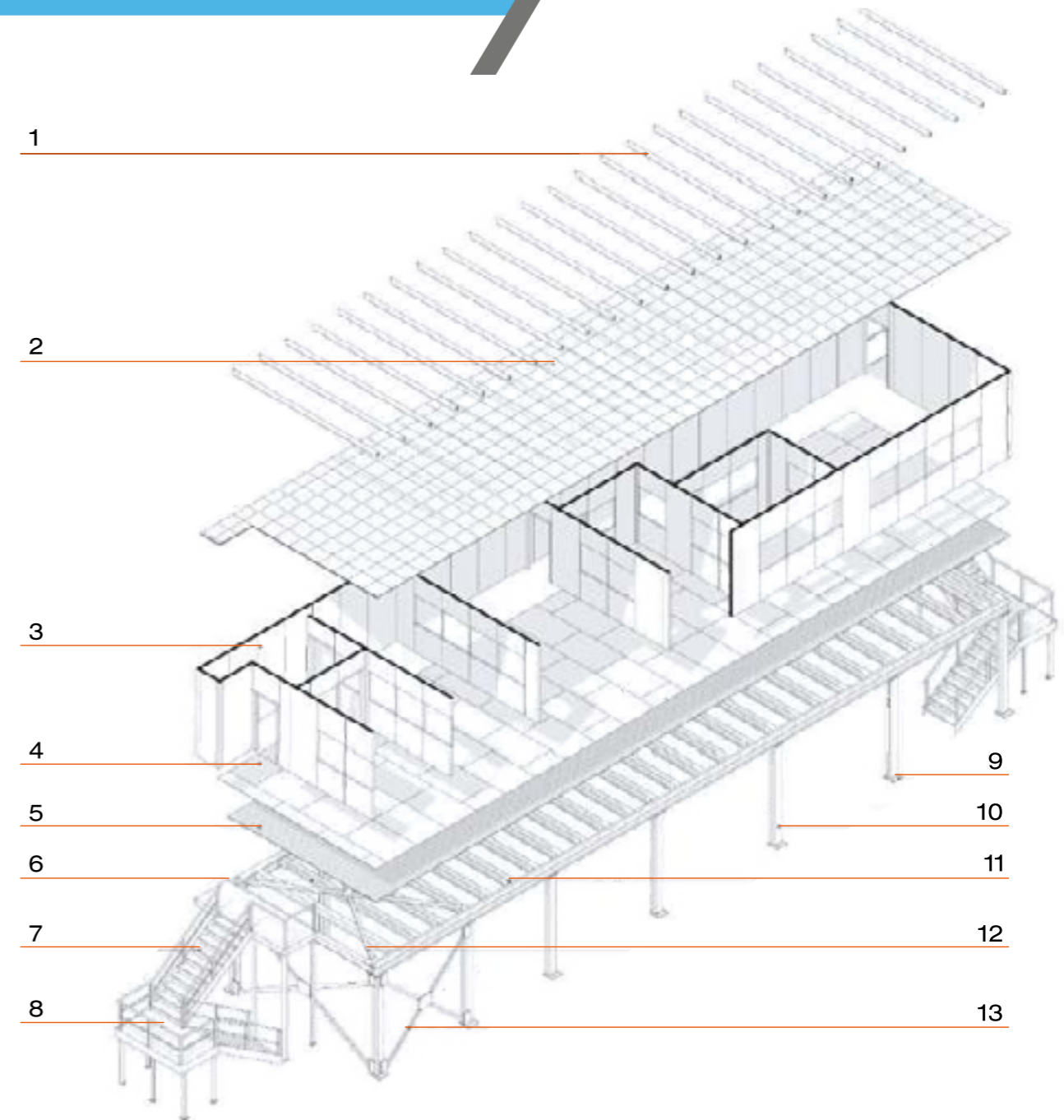
The exclusive structures of **FERALL RACKS** represent a step forward for the realization of self-supporting mezzanines.

In fact, the profiles of our production, given their particular strongly ribbed shape, allow the realization of mezzanines with free lights between the pillars up to 10 meters.

Our facilities offer the possibility of creating installations with multiple levels and capacities ranging from 300 to 1000 kg / sqm.

The pleasant aesthetic quality of the profiles used (epoxy-polyester powder coating), the ease and speed of assembly, the possibility of creating spaces equipped for offices, combined with their absolute strength and rigidity, are the basis of the great success that our structures have achieved on international markets.

FERALL RACKS, with the “turnkey” supply of mezzanines, floors, false ceilings and partition walls, creates a real “Integrated System for the creation of operating spaces”.



- | | |
|----------------------------------|---------------------------------|
| 1 False ceiling support joists | 7 Ladder |
| 2 False ceiling panels | 8 Parapet |
| 3 Partition walls | 9 Base plates |
| 4 Floor panels | 10 Pillars |
| 5 Corrugated sheet | 11 Primary supporting structure |
| 6 Secondary supporting structure | 12 Horizontal bracing |
| | 13 Vertical bracing |

SELFALL™ SELF-SUPPORTING

SELFALL™ self-supporting structure is an ideal storage system for companies that handle large quantities of goods, such as manufacturers, distributors and logistics centers.

These structure systems are designed to make the most of warehouse space, eliminating the need for pillars or supports that take up space and hinder the movement of goods.

What are the advantages?

Self-supporting structure offer numerous advantages for companies that use them as maximization of available space:

thanks to the elimination of pillars or supports, self-supporting racks allows you to make the most of warehouse space, increasing storage capacity by up to **50%** compared to traditional racks systems.

SELFALL™ represents a long-lasting investment, thanks to their robustness and resistance to the daily stresses of the warehouse.



ENGINEERING DEPARTMENT

The engineering company of the GROUP is specialized in the development of solutions that improve the efficiency and productivity of companies and industries at any stage.

Through a team of highly qualified engineers with many years of experience in the industrial sector, the following services are offered using the latest FEA technologies according to EN, ASME and national calculation codes.

SIZING REPORT CALCULATION

Such calculations are used to determine the dimensions and technical specifications needed to build an object that is safe, efficient and functional.

The results of the sizing calculations are used to determine the technical specifications for the components and parts needed to build the design, such as size, shape, material type, strength, durability, and safety. In general, dimensioning calculations are a fundamental tool to ensure the quality and safety of constructions and engineering devices.



CHECK REPORT CALCULATION

Calculations are a set of operations performed to evaluate the strength and safety of a structure or engineering device in relation to the loads and forces to which it is subjected.

Such calculations are carried out after the completion of the project and during the phase of verification of compliance with safety regulations and technical specifications.

TESTS

Testing is a procedure that is carried out to verify the correct functioning of a product, a plant or a system, in order to guarantee the quality and safety of the object tested. During testing, checks and tests are carried out to verify that the product or system complies with the specifications requested by the customer and that it meets the safety regulations. Testing can be of different types, depending on the type of product or system being tested.


INSPECTION VISITS


Inspection is a fundamental process to ensure the safety and stability of structures and prevent accidents.


Technical inspection is a safety-critical process and must be carried out regularly to ensure that facilities, equipment and/or products are safe and stable.





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ENGINEERED
automated storage
and retrieval system

ASRS



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